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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,046	04/16/2004	Steven S. Homer	200315743-1	9457

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EXAMINER

PAPE, ZACHARY

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.F)

Office Action Summary

Application No.

10/826,046

Applicant(s)

HOMER, STEVEN S.

Examiner

Zachary M. Pape

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☒ Claim(s) 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The following action is in response to the correspondence filed 6/13/2005.

The examiner thanks the applicant for disclosing that element 50 is the "screen member connector". Accordingly the examiner has withdrawn the objection to the drawings.

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Portable computer system with integrated antenna.

The examiner respectfully directs applicant to MPEP 606 (Title of Invention). Further the examiner directs applicant to the section stating: "If a satisfactory title is not supplied by the applicant, the examiner may, at the time of allowance, change the title by examiner's amendment".

While the examiner does agree that the claim language of claims 1, 11, and 16 are broadly attributed to a portable computer system, the invention as a whole is attributed to an antenna for such a system. The current title, "Portable computer system and method" is hardly descriptive of the present invention.

The applicant is hereby put on notice that if the title is not changed to a more descriptive title as required by 37 CFR 1.72, the title will be changed to the examiners suggested title as given above.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9, 11-13, 15-20, 22-27, 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakajima et al. (Patent # 6,456,499).

With respect to claim 1, Nakajima et al. teaches the use of a portable computer system (1), comprising: a bezel (9) adapted to support a screen member (8); and an antenna (12) disposed at least partially between the bezel and the screen member.

With respect to claim 2, Nakajima et al. further teaches that the antenna comprises a conductive trace (12) deposited on an interior surface of the screen member.

With respect to claim 3, Nakajima et al. further teaches a display device (7) disposed adjacent an interior surface of the screen member (8).

With respect to claim 4, Nakajima et al. further teaches that the antenna extends a predetermined distance along an interior surface of the screen member (As illustrated in Fig 4 between holes 31a and 31b).

With respect to claim 5, Nakajima et al. further teaches that the antenna comprises a pattern portion (See Fig 1 below)

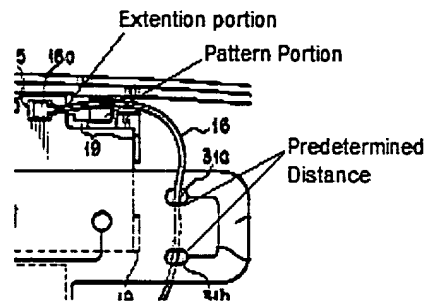


Fig 1

With respect to claim 6, Nakajima et al. further teaches that the antenna comprises an extension portion extending from the pattern portion to a screen member connector (15, See Fig 1 above).

With respect to claim 7, Nakajima et al. further teaches that the antenna comprises an extension portion (16) extending to at least two side areas of the screen member.

With respect to claim 8, Nakajima et al. further teaches a screen member connector (15) adapted to conductively couple the antenna to an internal antenna circuit (16) of the portable computer system.

With respect to claim 9, in so far as the bezel (9) of Nakajima helps maintain the antenna in place, the bezel conductively couples the antenna to the internal antenna circuits of the computer.

With respect to claim 11, Nakajima et al. further teaches a portable computer system (1), comprising: means for supporting a screen member (10); and an antenna means (12) disposed at least partially between the supporting means (10) and an interior surface of the screen member (8).

With respect to claim 12, Nakajima et al. further teaches the use of a means for conductively coupling the antenna means to an internal antenna circuit of the portable computer system. (Antenna 12 is coupled to second antenna piece (wire) 16 via connector 15. Wire 16 further travels into the computer system connecting the antenna to the internal antenna circuit).

With respect to claim 13, Nakajima et al. further teaches a means for conductively coupling the antenna means to the supporting means. (Fig 4 illustrates that antenna (12) is coupled to the screen member (10) via protrusions 19, 23, 26, etc. Because antenna (12) is in contact with supporting means (10) it is inherently conductively coupled to the supporting means (10)).

With respect to claim 15, Nakajima et al. further teaches a display means (7) disposed adjacent to the interior surface of the screen member.

With respect to claim 16, Nakajima et al. further teaches a method of manufacturing a portable computer system (1), comprising: providing a screen member (10) having an antenna (12) disposed on an interior surface thereof; and providing a bezel (8,9) adapted to support the screen member, at least a portion of the antenna disposed between the bezel and the screen member. (As illustrated in Fig 1)

With respect to claim 17, Nakajima et al. further teaches conductively coupling the antenna (12) to an internal antenna circuit (16) of the portable computer system.

With respect to claim 18, Nakajima et al. further teaches providing a screen member (10) having a pattern antenna portion (See Fig 1 above) disposed on the interior surface thereof.

With respect to claim 19, Nakajima et al. further teaches providing a screen member (10) having an extension antenna portion (As illustrated in Fig 1 above) extending from the pattern antenna portion (Illustrated in Fig 1 above) to a screen member connector (16a).

With respect to claim 20, Nakajima et al. further teaches conductively coupling the antenna (12) to the bezel (8,9). (Fig 4 illustrates that antenna (12) is coupled to the screen member (10) aided by protrusions 19, 23, 26, etc. Because antenna (12) is in contact with screen member (10) and the screen member (10) is in contact with the bezel member (8 and 9) the antenna is conductively coupled to the bezel).

With respect to claim 22, Nakajima et al. further teaches a portable computer system (1), comprising: a screen member (10), a display device (7) disposed adjacent an interior surface of the screen member, and an antenna (12) disposed on the interior surface of the screen member (10).

With respect to claim 23, Nakajima et al. further teaches that the antenna comprises a pattern portion (See Fig 1 above)

With respect to claim 24, Nakajima et al. further teaches that the antenna comprises an extended portion extending from the pattern portion to a screen member connector (15, See Fig 1 above).

With respect to claim 25, Nakajima et al. further teaches that the antenna is conductively coupled (via connector 15) to an internal antenna circuit (wire 16 which leads to the internal circuit in the body of the computer) of the portable computer system.

With respect to claim 26, insofar as the bezel (9) of Nakajima et al. helps maintain the antenna in place, the bezel conductively couples the antenna to the internal antenna circuits of the computer.

With respect to claim 27, Nakajima et al. further teaches the use of a bezel (8, 9) having a flange (See Fig 2 below) disposed between the screen member and the display device.

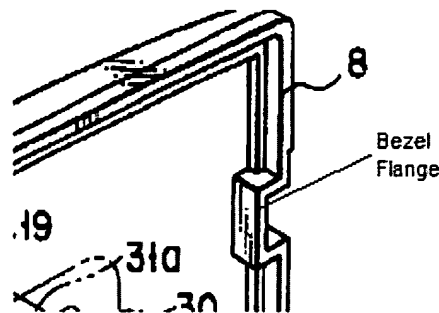


Fig 2

With respect to claim 29, Nakajima et al. further teaches that the antenna extends a predetermined distance along an interior surface of the screen member (As illustrated in Fig 4 between holes 31a and 31b).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 21, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima et al. in view of Chen (Patent # 6,809,689).

With respect to claims 10, 21, and 28, Nakajima et al. teaches the limitations of claims 1, 16 and 22, above, but fails to teach the use of a conductive via. Chen teaches the conventionality of using a conductive via (13, 14) to electrically couple an antenna to the internal circuitry thereof. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a conductive via to provide a signal from one side of the antenna substrate to the other and thus providing a stronger signal to the internal circuitry of the antenna through the connector (15).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima et al.

With respect to claim 14, Nakajima et al. teaches all the claimed limitations as expressed in claim 11 above, but fails to specifically teach that the interior surface of the screen member is deposited with a conductive means. It would have been obvious to one of ordinary skill in the art at the time the invention was made to deposit the interior surface of the screen member (8) with a conductive material to facilitate the conduction between the screen member (8) and the antenna (12) since doing so would allow for the entire screen (8) to act as an expanded antenna and further provide better signal sending and receiving capabilities.

Allowable Subject Matter

4. Claim 30 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With respect to claim 30, the claim recites a bezel flange disposed between the screen member and the display device, the antenna disposed between the bezel flange and the interior surface of the screen member. These limitations in combination with all remaining limitations of claims 22 and 30 are believed to render the subject matter allowable over the art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

5. Applicant's arguments filed 6/13/2005 have been fully considered but they are not persuasive.

With respect to applicants remarks that reference numeral 8 of Nakajima is not a "screen member", the examiner interprets the display unit (3) to be the screen (display and screen are well known terminology in the compute art and are commonly interchanged with each other) comprising all of the elements as shown in Fig 1 of

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Nakajima (With the exception of elements 2, 4, and 5). Since element 8 is a member of the screen, the examiner broadly interprets 8 to be a screen member.

With respect to applicants remarks that reference numeral 9 of Nakajima, "clearly does not support the display cover 8 of Nakajima", the examiner cites the definition of support as set forth in The American Heritage College Dictionary 4th edition, page 1387 as: "To be capable of bearing, withstand". As illustrated in Fig 1, clearly the bezel (9) is "capable of bearing" the screen member (8) for at least the reason that the two pieces are fitted together. Additionally, in the event that the screen (3) were to have a force applied to its backside, then the force would be transmitted through the screen member (8) and onto the bezel (9) wherein the bezel would be at least partially supporting the screen member (8). For at least the reasons set forth above, the bezel (9) of Nakajima et al. supports the screen member.

With respect to applicant's remarks that "it is difficult if not impossible to adequately address the examiner's rejection" in reference to claim 11, the examiner affirms the statement provided by the applicant on pages 8 and 9 reciting, "if the examiner is asserting that reference numeral 10 of Nakajima corresponds to the "means for supporting" recited by claim 11, and that reference numeral 8 of Nakajima corresponds to the "screen member" recited by claim 11". As clearly indicated by the examiner in the rejection to claim 11 both in the first correspondence mailed 3/9/2005 and to the rejection above, the reference numeral 8 is attributed to the "interior surface of the screen member" as set forth in the end of the recitation, thereby requiring that reference numeral 10 be attributed to, "means for supporting a screen member".

Additionally, the examiner respectfully notes that the screen member of claim 11 and claim 1 are still referred to by the same reference numeral.

With respect to applicant's remarks that "The wall (10) of the display cover (8) of Nakajima does not support the display cover (8) of Nakajima", the examiner cites the definition of support as set forth in The American Heritage College Dictionary 4th edition, page 1387 as: "To be capable of bearing, withstand". As illustrated in Fig 1, clearly the means (10) is "capable of bearing" the screen member (8) for at least the reason that the two pieces are fitted together. Additionally, as illustrated in Fig 2, in the absence of the means (10) the screen member (8) could not exist. Therefore, for at least the reasons set forth above, the means (10) of Nakajima et al. supports the screen member.

With respect to applicant's remarks that the "antenna substrate is clearly not disposed at least partially between the supporting means and an interior surface of the screen member", the examiner directs the applicant to Fig 2 where the illustration shows that the screen member (8) protrudes outward from the means (10). Further the illustration shows that the antenna means (12) is fitted onto the interior surface of the means (10) disposing the antenna in the "gap" or "interval" provided by the protruding screen member from the means (10). The examiner cites the definition of between as set forth in The American Heritage College Dictionary 4th edition, page 136 as: "In or through the position or interval separating". Since the antenna means (12) is disposed in the interval separating the protruding screen member (8) and the means (10) the

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antennal means is at least partially between the supporting means and an interior of the screen member.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,630,908; US 6,751,476; US 2004/0017319; US 2004/0017319;
US 2004/0047319; US 2004/0109286; US 2004/0209646 all further disclose the use of antennas in a display.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary M. Pape whose telephone number is 571-272-

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2201. The examiner can normally be reached on Mon. - Thur. & every other Fri.
(8:00am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached at 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**ANATOLY VORTMAN
PRIMARY EXAMINER**